

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/772,433	02/06/2004	Marcus Leech	57983.000164	5978	
Thomas E. And	7590 01/07/2008 derson	EXAMINER			
Hunton & Williams LLP 1900 K Street, N.W. Washington, DC 20006-1109			LANIER, BENJAMIN E		
			ART UNIT	PAPER NUMBER	
, -		•	2132		
				·	
			MAIL DATE	DELIVERY MODE	
	-		01/07/2008	PAPER .	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Advisory Action Before the Filing of an Appeal Brief

Application No.	Applicant(s)		
10/772,433	LEECH, MARCUS		
Examiner	Art Unit	)	
Benjamin E. Lanier	2132		

	Denjamin E. Lamer	2102	1
The MAILING DATE of this communication appe	ars on the cover sheet with the	correspondence ado	ress
THE REPLY FILED <u>19 December 2007</u> FAILS TO PLACE THIS	S APPLICATION IN CONDITION F	OR ALLOWANCE.	
1.  The reply was filed after a final rejection, but prior to or on this application, applicant must timely file one of the follow places the application in condition for allowance; (2) a No a Request for Continued Examination (RCE) in compliance time periods:	the same day as filing a Notice of wing replies: (1) an amendment, af tice of Appeal (with appeal fee) in se with 37 CFR 1.114. The reply m	Appeal. To avoid aba fidavit, or other evider compliance with 37 C	nce, which FR 41.31; or (3)
a) The period for reply expiresmonths from the mailing			
b) The period for reply expires on: (1) the mailing date of this A no event, however, will the statutory period for reply expire is	ater than SIX MONTHS from the mailin	ig date of the final rejecti	on.
Examiner Note: If box 1 is checked, check either box (a) or a TWO MONTHS OF THE FINAL REJECTION. See MPEP 7		E FIRST REPLY WAS F	ILED WITHIN
Extensions of time may be obtained under 37 CFR 1.136(a). The date have been filed is the date for purposes of determining the period of ex under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the set forth in (b) above, if checked. Any reply received by the Office later may reduce any earned patent term adjustment. See 37 CFR 1.704(b) NOTICE OF APPEAL	on which the petition under 37 CFR 1. tension and the corresponding amount shortened statutory period for reply origon than three months after the mailing days.	of the fee. The appropr ginally set in the final Offi	iate extension fee ice action; or (2) as
2. The Notice of Appeal was filed on A brief in comp	oliance with 37 CER 41 37 must be	filed within two montl	ns of the date of
filing the Notice of Appeal (37 CFR 41.37(a)), or any exte a Notice of Appeal has been filed, any reply must be filed AMENDMENTS	nsion thereof (37 CFR 41.37(e)), to	o avoid dismissal of th	ne appeal. Since
3. X The proposed amendment(s) filed after a final rejection,	but prior to the date of filing a brief	f, will not be entered b	ecause
(a) They raise new issues that would require further co (b) They raise the issue of new matter (see NOTE belo	nsideration and/or search (see NC		
(c) They are not deemed to place the application in better	• 1	educing or simplifying	the issues for
appeal; and/or (d) ☐ They present additional claims without canceling a	corresponding number of finally re	iootod claims	
NOTE: <u>See Continuation Sheet</u> . (See 37 CFR 1.1		jecteu ciaims.	
	* **	amaliant Amandmant	(DTOL 224)
<ol> <li>The amendments are not in compliance with 37 CFR 1.1.</li> <li>Applicant's reply has overcome the following rejection(s)</li> </ol>		ompilant Amendment	(PTOL-324).
Newly proposed or amended claim(s) would be all non-allowable claim(s).		timely filed amendme	ent canceling the
7. For purposes of appeal, the proposed amendment(s): a) how the new or amended claims would be rejected is protected. The status of the claim(s) is (or will be) as follows:	will not be entered, or b)      wided below or appended.	ill be entered and an e	explanation of
Claim(s) allowed:			
Claim(s) objected to:		•	
Claim(s) rejected: Claim(s) withdrawn from consideration:			
AFFIDAVIT OR OTHER EVIDENCE			,
<ol> <li>The affidavit or other evidence filed after a final action, bu because applicant failed to provide a showing of good and was not earlier presented. See 37 CFR 1.116(e).</li> </ol>	t before or on the date of filing a N d sufficient reasons why the affida	lotice of Appeal will <u>no</u> vit or other evidence i	ot be entered s necessary and
9. The affidavit or other evidence filed after the date of filing entered because the affidavit or other evidence failed to of showing a good and sufficient reasons why it is necessary	overcome <u>all</u> rejections under appe y and was not earlier presented. S	al and/or appellant fa See 37 CFR 41.33(d)(	ils to provide a 1).
10. ☐ The affidavit or other evidence is entered. An explanation REQUEST FOR RECONSIDERATION/OTHER	n of the status of the claims after e	entry is below or attacl	ned.
<ol> <li>The request for reconsideration has been considered bu <u>See Continuation Sheet.</u></li> </ol>	t does NOT place the application i	n condition for allowa	nce because:
12. Note the attached Information Disclosure Statement(s).	(PTO/SB/08) Paper No(s).		4
13. [ ] Ottlef	(		-
		Benjamin 6. Lan	iter

## Continuation Sheet (PTO-303)

Application No. 10/772,433

Continuation of 3. NOTE: Claim 1 as amended changes the scope of claims 6-9, and 11 because claim 1 was amended to include limitations from claim 2. Claims 6-9, and 11 depend from claim 1 and therefore, the limitations of claim 2 have not been considered with respect to claims 6-9 and 11.

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues, "Rogaway fails to disclose or even suggest the elements of applying a XOR function to all blocks of a message to compute a XOR-sum, applying a first mask value to the XOR-sum, encrypting the masked XOR-sum using a block cipher and a first key, and applying a second mask value to the encrypted XOR-sum to generate an integrity tag, as claimed." This argument is not persuasive because Rogaway discloses that each message blocks is concatenated (Page 5, checksum generation function), which meets the limitation of applying a XOR function to all message blocks of a message to compute a XOR-sum. The checksum is then XOR'd with Z[m] (Page 5, calculation of value 'T'), which meets the limitation of applying a third mask value to the XOR-sum. The result of the XOR function is then encrypted (Page 5, calculation of value 'T'), which meets the limitation of encrypting the masked XOR-sum using the block cipher and the first key. Rogaway does not disclose XOR'ing the result of the encryption with a value. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to XOR the data after the block algorithm, in addition to before, because this technique is not susceptible to meet-in-the-middle attack as taught by Schneier (Page 367).

Applicant argues, "Rogaway also discloses applying a string L and an offset Z[m] to one string of a message M before a block cipher Ek, as well as applying the same message string M[m] after the block cipher Ek (see pages 4-6)." Applicant has not considered the proposed modification of Rogaway used to rejection claim 12, which suggests that it would have been obvious to one of ordinary skill in the art at the time the invention was made to XOR the data after the block algorithm, in addition to before, because this technique is not susceptible to meet-in-the-middle attack as taught by Schneier (Page 367).

Applicant argues, "Rogaway also discloses applying and limiting as described above to a checksum of xor'ed message strings M, cyphertext string C[m], and block ciphered string Y[m]." Applicant appears to have not considered the entire rejection, as mentioned above. Rogaway teaches applying a XOR function to all blocks of a message to compute a XOR-sum (See page 5, calculation of Checksum), applying a first mask value to the XOR-sum (See page 5, Checksum Z[m]), encrypting the masked XOR-sum using a block cipher and a first key (See page 5, Ek(Checksum Z[m]). Rogaway does not disclose XOR'ing the result of the encryption with a value. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to XOR the data after the block algorithm, in addition to before, because this technique is not susceptible to meet-in-the-middle attack as taught by Schneier (Page 367).

Applicant argues, "Regarding combining Schneier with Rogaway to arrive at the claimed invention, such a combination would result in an inoperable methodology since replacing the limiting of Rogaway with an additional xor function as mentioned by Schneier would not result in a limited tag length  $\tau$ , which is required by Rogaway." This argument is not persuasive because the proposed modification of Rogaway never alleged "replacing the limiting of Rogaway with an additional xor function" as alleged by Applicant, but instead suggested exclusive or ing the result of encrypting (Checksum Z[m]). Additionally, Applicant's allegation of inoperability is unsupported by any actual cited evidence and is therefore unpersuasive.